CALIFORNIA STATE UNIVERSITY, NORTHRIDGE

IMMUNOFLUORESCENCE LOCALIZATION OF DISSOCIATION SUPERNATANT AND EXTRACELLULAR MATRIX COMPONENTS IN *LYTECHINUS PICTUS* SECTIONED EMBRYOS

A thesis submitted in partial satisfaction of the requirements for the degree of Master of Science in

Biology

by

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ABSTRACT

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Indirect immunofluorescence was used to localize specific extracellular components in embryos of the sea urchin *Lytechinus pictus*. Hyalin and S2 (a group of components found in the disaggregation supernatant from *Strongylocentrotus purpuratus* blastulae) were uniformly present at all stages (unfertilized up to 32 hour) except hyalin could not be detected at the 12 hour early blastula stage. Laminin was found in 16 cell, 32 cell, 6 hour, 18 hour, 24 hour, and 32 hour stages, with especially bright fluorescence at 18 hours. Collagen I was present at all stages (freshly fertilized up to 32 hour) except little was detected at 12 hours. Fibronectin

was uniformly present and blastocoelar fibers stained with anti-collagen I and anti-fibronectin. These results were compared with those for S. purpuratus to produce an overview of the localization of specific extracellular matrix components during development of two species of sea urchins. The results set the stage for future studies that will examine the function of these components at the various developmental stages.

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The Thesis of Ana Leticia Garcia-Flack is approved:

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